

Energy-saving effort halts Y-12, ORNL shuttle



One last tally

Veteran shuttle drivers, Harold C. Davis, right, and Clyde Mayes, chalk up one last passenger tally as the ORNL/Y-12 passenger shuttle rolled to a halt on February 3rd. Mayes, a Laboratory employee since 1944, has been assigned to the shuttle run since 1955; Davis, who joined Clinton Laboratories in 1945, has driven the shuttle for more than 15 years. Mayes has driven more than 1,110,000 miles on the shuttle run.

The passenger shuttle service between ORNL and the Y-12 Plant was discontinued recently as an energy conservation measure by the Nuclear Division.

Laboratory Director Herman Postma in a memo to division and program directors said, "Our shuttle records show only 15 passenger-round-trips per day (at an approximate cost of \$20 per round trip—as compared to the observed 200 passenger-round-trips per day observed in assigned sedans and trucks between X-10 and Y-12)."

He added that discontinuing this service will save some 7,000 gallons of gasoline annually as well as \$70,000 yearly for labor, maintenance, etc.

As an alternative to the passenger shuttle, the ORNL Transportation Department will implement more effective use and scheduling of existing vehicles such as:

- **"chartered Laboratory buses** for large groups on official business,
- **expanded limousine service**—ORNL groups numbering more than five can arrange transportation to and from Oak Ridge Operation facilities and surrounding area. Requests must be made the day before, with services charged directly to the requesters' divisions.
- **extended in-plant shuttle service**—encompassing the 7600, main plant and Melton Valley/7000 areas,

These measures can reduce ORNL's overall gasoline consumption by five percent per year.

The shuttle service began in 1944 as an energy conservation measure and ran continuously except for two few month periods in 1948 and 1973. Clyde L. Mayes is a veteran of the shuttle run, having worked it since 1944. Other familiar shuttle drivers are Harold C. Davis and Richard A. Ticknor, all of ORNL's Transportation Department.

question box

If you have questions on company policy, write the Editor, **Nuclear Division News** (or telephone your question in, either to the editor, or to your plant contact). Space limitations may require some editing, but pertinent subject matter will not be omitted. Your name will not be used, and you will be given a personal answer if you so desire.

Compensatory time off

QUESTION: I am a monthly employee on call one night a week and over the weekend every seventh week. My question concerns the manner in which compensatory time off (for overtime worked) is recorded on the monthly time card. In most departments compensatory time is either disregarded or shown as a scheduled day off, while in my department it is shown as personal. Since the amount of personal time required to offset the overtime worked would appear as a blemish on my employment record, isn't there some better way to record compensatory time off?

ANSWER: Compensatory time off for exempt salaried employees should be charged to personal and coded so that it is distinguishable from normal personal time on the record. The symbol "16C," which is used to indicate time off is compensatory rather than regular personal time off, which is shown as "16." Compensatory time is closely controlled and is only authorized for unusual situations, not for daily incidental and/or casual overtime which is a normal expectation for exempt employees.

Guard watching

QUESTION: Relative to the answer to the question on "guard-watching" at ORGDP, it is stated in the November 10 NUCLEAR DIVISION NEWS that "salaried employees at ORGDP are not assigned to sit in vehicles and observe guards."

I can supply names of employees from the Engineering Division who said they were instructed to do so. They stated they were there as "part of a survey." Was this authorized by ORGDP management?

ANSWER: The November answer was, as you indicate, in error. Further checking indicates that ORGDP's Security and Plant Protection Division did have the Maintenance Division's Industrial Engineering Department conduct a manpower and equipment audit in the fall of 1977.

The purpose of this audit was to provide reliable data regarding the assignment of plant protection personnel and related workloads upon which a determination could be made as to the appropriateness of the assignments and the effectiveness of the manpower. It was also used to gather information regarding the adequacy of facilities and equipment used by the guards in their work.

Setting pay rates

QUESTION: What rationale is used in setting pay rates for hourly operators and salaried technicians in the Separations Systems Division at ORGDP?

ANSWER: Each salaried position in the Corporation has a salary rate range which is designed to be equitable with the range of other positions inside the organization. The ranges are also set at levels which are competitive with similar jobs in other companies. Also, the salary rate ranges are designed with the flexibility necessary to recognize the

(Please turn to page 8)

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- Paducah answers 'Call of the Wild'..... page 7



The horse has been a companion to man through most of his recorded history. Battles have been won and lost with this noble creature fighting and dying beside his master. Edna McDade, Office of Waste Isolation, however, has chosen the peaceful side of the creature as her "different drummer." She writes of the trials and joys of horse training on pages 4 and 5.

Circus tickets again offered to employees with discount



HIGH-FLYING CAT—Leopards don't say "no" to master-trainer Gunter Gebel-Williams as he coaxes them to waltz on a highwire, jump backwards and brave fire in the action-packed 107th edition of Ringling Brothers and Barnum and Bailey Circus. Discount tickets are again available to Nuclear Division employees.

The Ringling Brothers and Barnum & Bailey Circus again calls Union Carbide employees and their families to "Come one! Come all!" to the extravaganza traditionally known as the Greatest Show on Earth. Young-at-heart Carbiders will be offered discounts on Circus tickets for 4 of the 12 scheduled performances taking place Tuesday, March 21, through Sunday, March 26, at the Knoxville Civic Coliseum.

An employee discount of \$1.50 will be offered on all \$6.50 and \$5.50 seats for the shows on Wednesday, March 22, 4:15 p.m. and 8:15 p.m.; Thursday, March 23, 4:15 p.m.; and Friday, March 24, 4:15 p.m.

The 107th edition of the Ringling Brothers performance, entitled "Circus Mardi Gras" will feature well-loved three-ring thrillers introduced by a vociferous master of ceremonies.

Specially featured this year will be Gunther Gebel-Williams, who will cuddle and command leopards, lions and other four-footed felines of the African jungle. Other animal acts will include Miss Anna's poodles, the Lonas Dogs and an Elephant Disco show, to name a few.

The Flying Sergreras' ease with the trapeze will be presented in their first American showing. Antionette

Easy come, easy grow.



Take stock in America.
Buy U.S. Savings Bonds.

Concello's aerial act is being presented for the first time before an audience.

Employees should complete the ticket order blank by March 11. Ringling Brothers and Barnum Bailey will select all seating. Please enclose a stamped, self-addressed envelope for the return mailing of tickets.

safety scoreboard

Time worked without a lost-time accident through February 23:

Paducah	216 Days	2,697,000 Man-Hours
ORGDP	23 Days	844,000 Man-Hours
Y-12 Plant	6 Days	123,000 Man-Hours
ORNL	39 Days	867,836 Man-Hours

Union Carbide Circus discount tickets

Mail to:

Ringling Bros., Barnum & Bailey Circus
Knoxville Civic Coliseum
P.O. Box 2603
Knoxville, Tennessee 37901
Prices: \$6.50 and \$5.50
Deduct \$1.50 for each ticket



Number of tickets _____ ea. \$ _____
(Please indicate 1st and 2nd choices)

Wed., Mar. 22 - 4:15 p.m. _____ 8:15 p.m. _____
Thurs., Mar. 23 - 4:15 p.m. _____
Fri., Mar. 24 - 4:15 p.m. _____

Name _____
Address _____
Day telephone _____

Do not mail cash. Make check or money order payable to Ringling Bros. Circus. Please enclose stamped self-addressed envelope for return of tickets. Deadline is March 11.

retirements...



N78-21
John T. Byrum
Y-12 Guard Department
33 years service



N78-26
Edgar S. Cochran
Y-12 Maintenance
21 years services



N78-23
Clifton E. Herrell
Alpha 5
Y-12
34 years service



N78-16
Melburn F. Patterson
Y-12 Machine
Maintenance
27 years service



N78-19
Mendel Maskewitz
Y-12 Research Services
26 years service

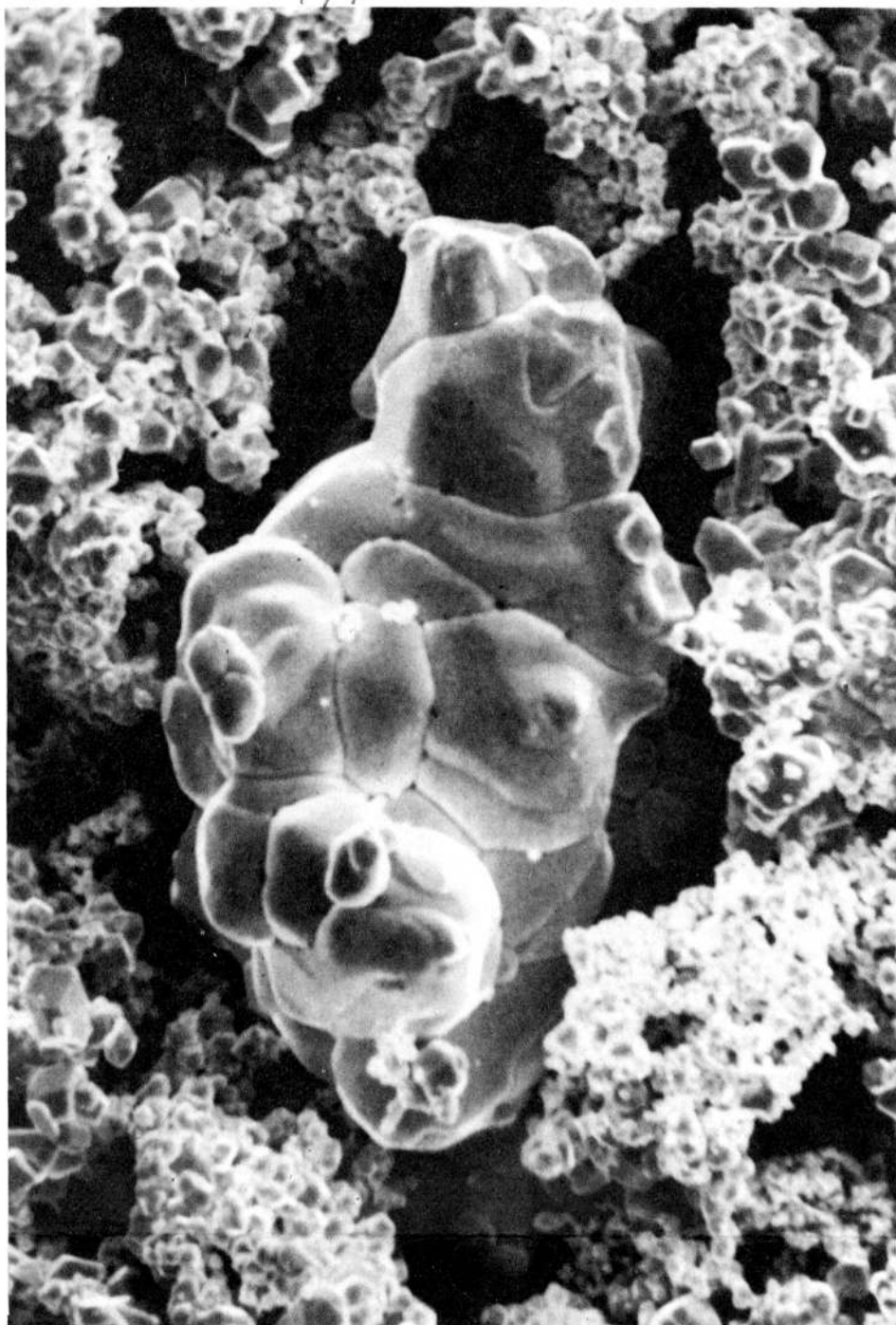


Helen M. Truett
ORGDP
Personnel Relations
30 years service



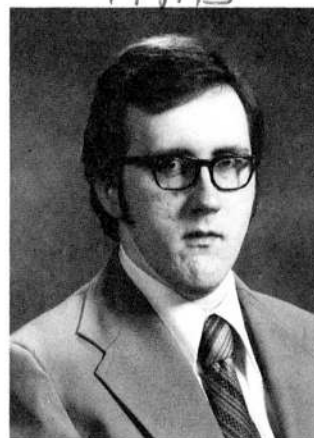
N78-20
Boyd M. Adkins
Process Maintenance
22 years service

Also:
Millard W. Massengill
Finance and Materials
ORNL
34 years service



IT DOESN'T BITE—Tungsten is a hard, brittle, corrosion-resistant gray to white metal extracted from wolframite, scheelite and other minerals. It has the highest melting point and the lowest vapor pressure of any metal. Robert K. Bennett, Y-12 Development Division, shows us what the stuff looks like in a photomicrograph, magnified 3,000 times.

about people



Duncan



Weir

Michael G. Duncan, Y-12 Laboratory Development, was recently cited by the Committee on Employment of the Handicapped. Duncan was chosen to receive the achiever award, which is given annually to handicapped citizens who have "exemplified high degrees of achievement, especially when faced with a handicapping condition." The honor was given at the Jaycee's Clubhouse, Oak Ridge, on February 9. Duncan is the son of Mikey Duncan, Y-12 General Plant Tooling Coordination. He is a native of Clinton and holds a Ph.D. from the University of Tennessee in electrical engineering.

* * *

James R. Weir Jr., director of the Metals and Ceramics Division, has been elected to serve a three-year term on the Board of Trustees of the American Society for Metals.

He began working at Oak Ridge in 1955 as a metallurgist in the Mechanical Properties Laboratory. Since then, he served in a number of positions until being appointed director of the Metals and Ceramics Division in 1973.

Weir is also a member of the American Nuclear Society, American Welding Society, and the American Association for the Advancement of Science.

* * *

Juan R. San Sebastian, a postdoctoral trainee in the University of Tennessee-Oak Ridge Graduate School of Biomedical Sciences, has been awarded a two-year, \$33,500 toxicology fellowship by the Monsanto Fund, St. Louis, Mo. Fellowships were awarded to seven researchers nationwide out of a total of 34 applicants.

San Sebastian, who holds a Ph.D. degree in human cytogenetics from Fordham University, came to ORNL's Biology Division in May, 1976, as a postdoctoral fellow working with geneticist Abraham W. Hsie. The research project for which he received the fellowship will involve the development of a genetic toxicity system for simultaneously determining four specific biological effects of certain chemical agents on mammalian cells. San Sebastian lives at 107 Edinboro Lane, Oak Ridge.

retirements...



Gaines M. Fowler
Laboratory Protection
ORNL
34 years service
N78-11



Elbert T. Deaderick
Plant and Equipment
ORNL
28 years service
N78-13



Vernie A. Mattox
Y-12 Buildings,
Grounds
26 years service
0792-78



Hosie Simmons
Y-12 Process
Maintenance
29 years service
0793-78



Vernon Huddleston
Y-12 Special Services
Alpha 5
32 years service
0791-78



Travis D. Craig
Y-12 Medical
Y-12
23 years service
N78-25



Alice J. Mattingly
Y-12 Medical
12 years service
0790-78



Thomas R. Wall
Machine Maintenance,
Y-12
19 years service
N78-18



James H. Patrick
Y-12 Dispatching
33 years service



Evelyn P. Crouse
Y-12 Travel
26 years service



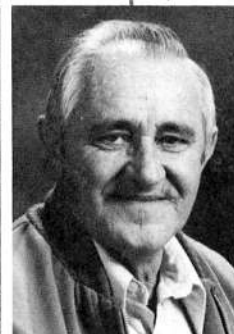
David E. LaValle
Analytical Chemistry
ORNL
31 years service



William J. Martin
Chemical Technology
ORNL
29 years service



William I. Tillery
Plant and Equipment
ORNL
32 years service



John Baird
Alpha 5 East
Shop, Y-12
24 years service



James H. Sherrod
Instrumentation and
Controls, ORNL
21 years service



John C. Holt
Y-12 Buildings,
Grounds
25 years service

A Different Drummer...

Horses are an excellent hobby...making one big happy

By Edna McDade

There's no such thing as starting slow when your hobby is horses. We found this out shortly after buying our first horse in 1970. Bucky McDade, my husband, is an electrical engineer in the Fusion Energy Electrical and Instrument Engineering Department, and I am a secretary in the Office of Waste Isolation.

While living in Marietta, Ga., we tried several breeds of horses and finally were introduced to the American Morgan Horse. The Morgan is America's first breed of horse, and traces back to the legendary breeder, Justin Morgan. It is the only breed perpetuated by the U. S. Government. The Morgan was used in establishing such breeds as the Standardbred, the American Saddlebred, the American Quarter Horse and the Walking Horse. We proclaim our breed as the "Pride and Product of America."

'Much more than we expected from a green horse'

In 1974, we purchased a Morgan mare, Ponderosa's Bout Time, that we affectionately tagged "Baby." She was two and had just been turned out on pasture. Baby was very furry with her winter coat, and for the next month she tolerated my brushing her for hours on end. We went to our first show for a halter class, and her previous owners didn't recognize the shiny horse I was leading to the show ring. Well, we "bombed out" in that class, but that certainly didn't predict the future.

Alison Mauthe, a young Atlanta trainer, saw a lot of promise in the filly, so when she was three years old we let Alison start training her to saddle. Alison is the former World's Champion Saddlebred Equitation rider. We could never have a better person for our horse; we've found they really work together as a team.

After only six weeks of training, we ventured to our first show under saddle. We placed third in a youth class with one of Alison's students riding and fifth in the English Pleasure Championship. This was much more than we had ever expected from such a "green" horse. Baby had a lot of finishing touches to be added, and, boy, were they ever added! Just when the showing was good, we moved to Oak Ridge. From then on, there were trips almost every weekend to Georgia.

We showed extensively the next year, and in 1976 Baby was the Georgia English Pleasure Champion, Junior Horse Champion and High Point Mare. We thought this was the limit, but last October she won a spot as one of the nation's top 10 horses at the Morgan Grand Nationals in Oklahoma City. Now our buttons are bursting with pride. All the hours of work have paid off in the grandest of ways.

'A lot of work, time and money'

So, what does it take for our hobby to be fun? A lot of work, time and, of course, some dollars. We take care of our own horses, so that means we go feed before work and then go back

again after work. During nice weather we try to do daily exercising. Cleaning and feeding are year-round activities.

In the grooming area, there's bathing and clipping in addition to a lot of brushing. With electric clippers you clip a bridle path, the whiskers, long lashes around the eyes, all hair out of the ears and tidy the legs a bit. This year we have added a new horse vacuum to help with the grooming chores.

'Gains weight at the drop of an oat'

A horse must be fitted properly with tack, just as a person with clothes. There are different styles and sizes of saddles, bridles, bits, girths, blankets and any kind of equipment you could possibly use. Since proper fit is important, we spend a lot of time making sure articles are just right, and if we can't find the right size locally we order it from out of town. Over the years we have acquired a large variety of leather goods and know what works best on each horse.

Also of extreme importance are health related items. Horses need shots, wormings and dental work done on regular schedules. A horse's teeth get sharp and must be filed or "floated" by the vet. Bad teeth can cause problems, and sometimes teeth must be pulled. Nutrition is on an individual basis. Every horse can't maintain weight on the same amount of food, so this is trial and error until you get the horse to a satisfactory level. If there was a Weight Watchers for horses, "Baby" would belong. She gains weight at the drop of an oat. This could present problems at show time if we were not so careful with her.

We enjoy our horses on trail rides, at shows, at riding club functions and just hacking around the barn. Bucky does most of the saddle work and believes it is important to learn to control a horse with finesse instead of force. However, we know this doesn't always work. He works with and shows another Morgan, a gelding named Ponderosa's Case J. "Casey" is a full brother to Baby, and was also purchased from the Ponderosa Morgan Horse Farm in Newnan. I have a new horse, Lewisfield Gringo, a Purebred Arabian, and hope to show him this summer in local shows.

'Fortunately, all our scary moments didn't end up disasters.'

I still really enjoy driving Baby in pleasure driving classes. In these classes you are asked to walk, trot, road trot and back the cart. Ladies wear long dresses and men wear snappy suits. Fashion is the name of the game in driving classes.

The hobby is fun, but also hazardous. Horses will bite, kick, shy, run away and step on your feet, just to name a few tricks. There's nothing worse than trying to push 1,000



In harness

pounds of horse off your foot. You look up at him and swear he has a grin on his face while standing on you. Sometimes horses go over the strangest obstacles, but will shy at a piece of paper on the ground. This hobby keeps you alert, or you end up in the dirt.

Injuries to riders or steeds are always unexpected and require a lot of time and attention. We've had heartbreaks while showing. Baby broke out the gate in a championship in Atlanta, was hit in the face by a spectator in Raleigh, and was run into by another horse at the Grand Nationals in Oklahoma City. You may see all your hours of work destroyed in a split second. Fortunately, all our scary moments didn't end up as disasters.

'Horses are a good hobby. They teach you responsibility...Yet tie you down'

Horses are an excellent hobby. They teach you responsibility, yet they can tie you down. We are lucky to have good friends to care for our horses when we travel. We do the same for them in turn.

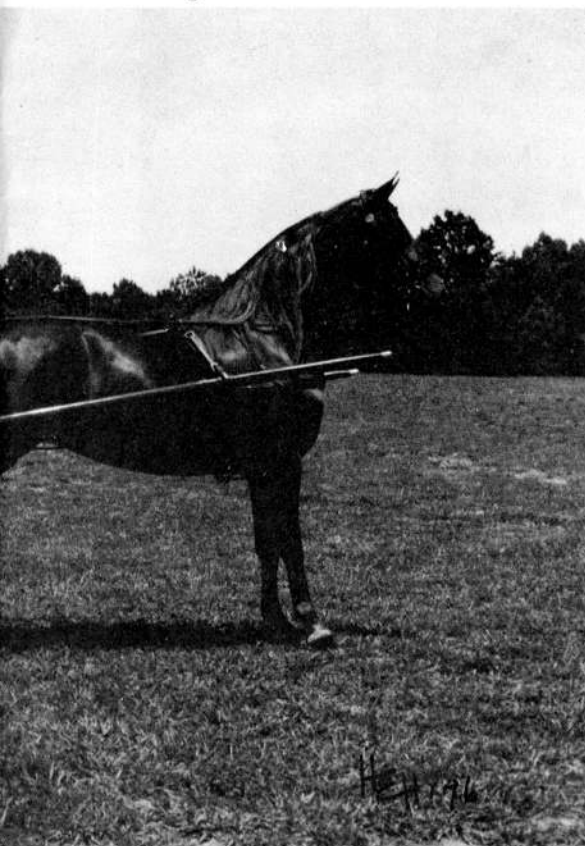
Anyone can enjoy this sport if they are matched with a horse on their ability level. I found this a hard lesson to learn. I like a flashy looking horse, but have not always been able to handle the disposition that usually comes with the look.

Most of our friends in Oak Ridge are involved in horses. Most of them are also associated with Union Carbide, so it makes us one big family. We look forward to many more hours of work, travel and showing horses again this season...and, we can surely suggest that you fight air pollution by riding a horse.



Edna and 'Baby'

family



ss again



Bucky takes to the saddle

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Member,
INTERNATIONAL
ASSOCIATION
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COMMUNICATORS

anniversaries...

PH 78-688

ORGDP 35 YEARS



Snead

Richard S. "Sam" Snead's company service dates back to February 9, 1943, when he joined Du Pont and came to the X-10 site. Prior to coming to the Oak Ridge area, he was with the Riggs National Bank as assistant to the comptroller. A native of West Virginia, he spent most of his youth in Montgomery County, Maryland. He is a graduate of the American Institute of Banking and Benjamin Franklin University. Snead is in Computing Technology. He and his wife, Helen, live in Clinton. They have two sons, Richard L. and J. Jackson.

30 YEARS

Bailey M. Britton, Building Maintenance Department; and Frances O. Ware, Isotope Analysis Department.

25 YEARS

Preston A. Cuthbertson Jr., Everett T. Strunk and William L. Adkins.

20 YEARS

Joseph D. Sherrod, Sam E. Ellis, John P. Cowen and Harry G. Conner.

ORNL

2894-74 35 YEARS



Livingston

Moyers

Robert S. Livingston, director of the Program Planning and Analysis Office of ORNL, joined the Manhattan Project on March 4, 1943, while working for Tennessee Eastman. In 1948 this project was placed under Union Carbide Corporation as a part of ORNL.

Livingston was Director of the Electronuclear Division of ORNL from 1951 to 1971, at which time he moved into his present position.

Livingston graduated *magna cum laude* from Pomona College with a degree in physics and mathematics

and later received his Ph.D. in physics from the University of California.

He and his wife, Audrey, a Physics Division employee, live at 9 Fairlane Drive, Powell. They have five children.

Cecil E. Moyers joined the Engineering Division of Union Carbide Corporation's Nuclear Division March 29, 1943, and presently works as a design engineer at ORNL. Moyers, a Knoxville native, is a graduate of Knoxville High School and worked for Tennessee Marble, Inc., prior to joining Union Carbide in 1943. He and his wife, Margaret, live at 3515 Plumwood Road, Knoxville. They have three children: Judith Laverne, Rebecca and Charles.

30 YEARS

Raymond E. Millspaugh, Industrial Safety and Applied Health Physics; Thomas C. Quinby, Solid State; Richard C. Shipwash, Chemical Technology; Jeanne Z. Brown, Central Management; George A. Holt, Instrumentation and Controls; Betty L. Pope, Fusion Energy; Joseph T. DeLorenzo, Instrumentation and Controls; and Charles A. Mills, Engineering Technology.

25 YEARS

Richard H. Anderson, William L. Corum, Hanover Weaver, Hugh P. Nichols, Thomas R. Rice, Frank L. Herron and Herbert D. Mobley.

20 YEARS

Joseph Lewin, Franklin L. Milen, James M. Williams, Ernest Wilson and William H. Davy Jr.

Y-12 PLANT

30 YEARS

Betty I. Fox, Nuclear Materials Accountability; and Robert B. Bullard, Buildings, Grounds and Maintenance Shops.

25 YEARS

Toy Moon, Lorene M. Lawhorn, Ernest E. Choat, Willard A. McFarland, James P. Thomas, Louis Kovach and Bobbie N. Hill.

20 YEARS

William A. Slona Jr., Bobby L. Tichenor and Clarence P. O'Brien.

PADUCAH

25 YEARS

William G. Stout, Robert L. Crutcher, Lenith A. Rogers, Harold F. Brown, Elmer C. Breidert, Max Sacharnoski, Eldon R. James, Carol F. Alexander, Joseph R. Elliott, Harold D. Hargan, Wendell M. Cox, Wanda M. Pendergrass and Edwin L. Parham.

Named to shift post at Paducah



Thompson

William E. Thompson has been named shift superintendent coordinator at Paducah, succeeding Carl C. McDowell, who recently retired.

Thompson has a B.S. degree in chemical engineering from the University of Kentucky and has been with Union Carbide almost seven years. He has been production planning section head and assistant general supervisor in Paducah's Cascade Operations Division.

As shift superintendent coordinator, Thompson is responsible for emergency preparedness and direction within the plant, and will serve also as the chief authority for "off-shift" operations.

He and his wife, Brenda Jean, reside on Lutes Road, Paducah, with their son, Blake.

division death...

William H. Borum, Y-12 Assembly Division, died February 10 at his Clinton home. A native of Oliver Springs, he served in the U.S. Army and worked with General Electric Co. before joining Union Carbide in 1968. He lived at 512 Timbercrest Drive, Clinton.



Mr. Borum

Mr. Borum is survived by his wife, Betty Woods Borum; son, Timothy; parents, Mr. and Mrs. Harold Borum; and sisters, Mrs. Maurice Woods and Mrs. Glen Wright.

Funeral services were held at Sharp's Funeral Home, with interment in the Anderson Memorial Gardens.

patent granted...

To Walter J. Lackey Jr. and John D. Sease, both of ORNL, for "Process to Minimize Cracking of Pyrolytic Carbon Coatings."

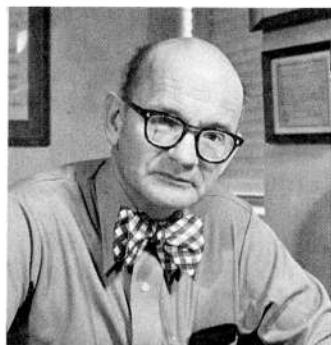
Savings Plan-Personal Investment Account

	Fixed Income Fund	UCC Stock	Equity Investment Fund
December 75	11.9880	58.7886	7.8231
December 76	13.0553	59.2723	8.8166
November 77	14.0995	41.9255	8.0095
December 77	14.2017	40.9096	8.0427
January 78	14.3033	39.4015	7.5433

Note: Fixed Income Fund unit values reflect interest additions to achieve the guaranteed effective annual interest rate of 8.85% for 1978. Union Carbide stock values are the average cost of stock purchased during the month plus brokerage charges. Equity Investment Fund unit values represent the month-end market value of securities held by the Fund. The price of each unit is determined by dividing the total value of the securities by the number of units in the Fund.

Medicine Chest...Premature
graying

by T. A. Lincoln, M.D.



(Editor's Note: Dr. Lincoln alternates his regular column with "Medicine Chest," where he answers questions from employees concerning health matters. Questions are handled in strict confidence, as they are handled in our "Question Box." Address your question to "Medicine Chest," Nuclear Division News, Building 9704-2, Mail Stop 20, or call the news editor in your plant.)

QUESTION: "Why does hair change in texture when it gets gray? How reliable is graying of the hair as a sign of aging? Does hair ever suddenly turn white?"

ANSWER: Dr. Aaron B. Lerner, Yale University School of Medicine, feels that the same mechanism which causes vitiligo—the scattered patchy depigmentation of the skin—causes graying of hair. Both in vitiligo and in premature graying, there is frequently a family history of either or both of these problems which began at a relatively early age. Many people with gray hair don't have enough vitiligo to even notice it, but as they get older, almost all of them will develop a little.

Several thio or phenolic chemicals will cause loss of pigment in the skin and hair when taken internally in excessive amounts. Hydroquinone and the monobenzyl ether of hydroquinone have been used clinically to depigment patients who have ugly patches of vitiligo on their faces. These chemicals block the formation of the pigment melanin and can permanently cause graying of the hair.

Associated diseases

Several diseases are associated with premature graying. Individuals whose thyroid glands become overactive (hyperthyroid) often develop premature graying of their hair. Patients with pernicious anemia and Addison's disease (inadequate function of the adrenal gland) often become gray. Patients whose hair falls out suddenly in scattered patches, a condition called alopecia areata, frequently have gray hair when it grows back after the disease passes.

In most cases, premature graying is genetic in origin and a relatively poor index of the aging process. Like premature baldness, it may occur in relatively young people who are otherwise vigorous. As everyone knows, however, graying and aging are associated and few people make fifty without "salt and pepper" involvement.

There are hundreds of accounts of sudden whitening of hair. Sir Thomas More's hair allegedly turned white the night before his execution. There is no physiological mechanism to explain sudden whitening of the hair. Once hair is formed it is dead and inaccessible to change. What probably happens is a sudden loss of pigmented hair. Gray hair is almost always a mixture of gray and

pigmented hair. If the pigmented hairs suddenly fall out, the remaining gray hairs become predominant and maybe sufficient in number to still provide a reasonably adequate cover of gray hair.

Japanese studies

In 1971, several Japanese investigators carefully measured the tensile strength and diameter of hair of Japanese men. The diameter of the hair was largest about age 15 and then gradually decreased with advancing age. The breaking strength of hair increased up to age 20 and then began to decline. In a paper which was impressive because of its attention to meticulous detail, the authors, Nobuko Naruse and Takuo Fujita of the University of Tokyo, measured the hair with a micrometer under 470-fold magnification through an optical microscope. They carefully controlled the temperature and humidity. They also determined the breaking strength of a single hair, percent extension of a single hair at breaking and the amount of energy required until breaking.

As hair gets older, it becomes thinner, more fragile and coarser. The latter term applies to its softness, suppleness and moisture and oil content. It is apparently related to a general aging process, and little can be done about it. It can be skillfully covered up with dyes and conditioners, but a chemist and a machinist with a delicate micrometer can quickly uncover your secret!

wanted...

**ORNL**

RIDE ONLY from South Purdue, west area of Oak Ridge, to North Portal, straight days. Elizabeth Montesa, plant phone 3-6032, home phone 482-5053.

RIDER WANTED from Karns/Ball Camp area, Knoxville, to any portal, 8-4:30. Neil Griffith, plant phone 3-6422, home phone 690-1876.

RIDE ONLY from North Purdue, Downtown Shopping District, Oak Ridge, to East Portal, straight days. Gerri Cox, plant phone 3-6665, home phone 483-6770.

CAR POOLING is not only economical, it's more fun. If you want to join one, or need a ride, give us a ring.



HEROIC ACTION—Three ORGDP employees were cited recently for action in providing emergency treatment for victims in distress. The immediate action of Tony Medley, left, was the application of cardiopulmonary resuscitation to a victim of a heart attack that occurred in traffic. John Gray, center, received a commendation for applying the Heimlich method to a fellow employee who had swallowed a toothpick. Jim Stewart, right, pulled a fellow employee from the creek after a freak accident.

Emergency aid assistance
brings ORGDP commendations

Three recent incidents involving ORGDP employees highlight the importance of acting quickly in providing emergency aid for victims in distress. Plaques of commendation for emergency aid were presented to John Gray, Tony Medley and Jim Stewart.

In the first incident, a barrier employee considers himself a lucky man to have Gray, a fellow worker, as a friend. The employee had just finished lunch and swallowed a hand-made plastic toothpick.

Gray, seeing his friend in trouble, quickly used the Heimlich method that he learned during emergency squad training received while on the job.

The Heimlich method involves wrapping your arms around the mid-section of the individual in distress and applying pressure. In this case, the pressure forced air in the lungs of the victim to expel the toothpick. The method is often used when someone is choking on food.

The second case, involving Medley, an associate project engineer, occurred while he was on his way to work. Medley, an Annapolis graduate and Marine Corps Vietnam veteran, saw a man hit his head on a car bumper after falling. Medley stopped his vehicle and checked the victim's vital signs. The signs pointed to a massive heart attack. Medley single-handedly performed cardiopulmonary resuscitation (CPR) for 20 minutes until an ambulance arrived. The ambulance attendants requested he continue CPR until they got to the Harriman hospital, 10 minutes away, where doctors were able to commence other treatment.

The third incident on a cold day in late December involved Stewart of the General Accounting Division. Stewart was on his way to work two days after Christmas when the car in front of him went out of control and dropped 10 feet down a concrete culvert before coming to rest on its top in Poplar Creek.

Stewart stopped his car and went into the creek to free the victim. The doors of the vehicle were jammed from the impact; however, Stewart managed to open the back hatch door and assist the driver to safety.

It's nice to have people like Gray, Medley and Stewart around, particularly during an emergency.

ORGDP

JOIN CAR POOL from Chapman Highway area, south Knoxville, to Portal 7, straight day. Parker Ragain, plant phone 3-3231, home phone Knoxville 573-8885.

JOIN CAR POOL from Jacksboro area, to any portal, B Shift. E. R. Tapp, home phone Jacksboro 562-9608.

JOIN CAR POOL, one or two people, from Rockwood to Portal 5, straight day. Connie Allen, plant phone 3-9623.

(Please see page 7)

recreationotes . . .

Carbide bowling. . .

Western Plaza Mixed...

The Four Eagles and Bowderdash are tied for first place, each with only 3 losses in 4 weeks of play in this half. Close behind are the Roadrunners and Pin-Ups. Individual honors go to Don Kelso for his 232-236-170/638 first place series performance and to Roger Lankford for his 100 pins over average 254 which captured high scratch game for him. Randall Woods rolled a 152 triplicate score.

Family Mixed. . .

The Challengers have the lead this week in the Carbide Family Mixed League. John Patton rolled a 547 scratch series for the men. Al Adams fired a 574 scratch series last week for the women.

ORNL C...

The Remkeys won 28-1/2 points last week to hold their first position in the ORNL "C" League. Roy Clark helped the Remkey's with a 659 handicap series. Tip Gray, of the Damagers, fired a 215-224-195/634 scratch series.

Y-12 Classic. . .

The Has Beens have a two point lead over the Eightballs in the Y-12 Classic League. Bill Ladd rolled a 621 scratch series to win this week's top honors. Tom Hillard won high scratch and handicap game rolling a 255/272.

ORNL Ladies. . .

In the ORNL Ladies League, the Mousechasers have a commanding lead over the Avengers. Carolyn Vaughn won all the weekly prizes for the Mousechasers with a 523/634 series.

ORGDP Women's. . .

The Payoffs took the lead back over the Uptowners by 2 points this week in the ORGDP Women's League. Madge Newton won the bowler of the week last week, rolling a 233-198-225/646 handicap series. Terry Tipton won the award this week with a 214-222-161/597 handicap series.

Camera Club

The Carbide Camera Club has set its next meeting for March 14, at 7:30 p.m. at Cheyenne Hall. Ron McConathy, an accomplished nature photographer, will discuss his art with illustrated color slides and prints.

The details for 1978's Salon have been announced. The show will be held between April 2 and 30, with slides and prints, both in color and black and white, at the Oak Ridge Museum. Details will follow.

More information about meetings and membership in the Camera Club may be obtained from John Blankenship, extension 3-3533; or Lester Petrie, 3-1910.

Y-12 C League. . .

The Sunflowers took the lead in the Y-12 "C" League this week. Jules Kendra rolled the high handicap game of 268 to move him into first place in the season standings.

Carbide Shifters. . .

The 2 + 2 continue to lead the Shifters League over the B. T. Express by only one point. Magie Wolfe, of the B. T. Express, rolled a 647 handicap series last week.

UCC Mixed...

The Lickety Splits moved into first place in the UCC Mixed League. Vicky Steward won top honors rolling a 211/250 game with a 498/615 series.

ORNL A...

The Limits took the lead in the ORNL "A" League over the Zots. Ray Eskridge won the high handicap series helping the Woodchoppers win team series with a 2903.

K-25 Tuesday. . .

The City Slickers still top the K-25 Tuesday Men's League. Last week, F. Strang won high game with a 239/267 series. This week, M. J. Gibson rolled a 216/239 game, which gave him a 637/706 series.

K-25 Wednesday. . .

The Planners are still in first place in K-25 Wednesday Men's League. The weekly prizes were won by Frank Horton for high handicap game of 269, and Steve Rhoads with a 676 won the handicap series.

Hi Power Rifle...

The Carbide High Power Rifle League will begin the 1978 season on April 1. Subsequent matches will be held on April 29, May 20, June 3, June 24, and July 15. All Carbide employees are eligible to participate. The matches will be held on the high power rifle range of the Oak Ridge Sportsman's Association. Further details can be obtained from the Recreation Department.

Skeet League...

The Skeet Club had three winners from ORNL during the month of January. George Kwiecien won first shooting with a 49.360. Second went to Helen Raaen with a 47.920, and Vernon Raaen won third with a 47.307.

wanted...



ORGDP

VAN POOL RIDERS from Karns to any portal, straight days. Tom Lemons, plant phone 3-3291, or 3-3556; home phone Karns 947-8959.

Call of the wild...



The hunted in flight...



The final quest...



In readiness...

Paducah Carbiders enjoy a rather unique recreation because of their fortunate location along the Mississippi flyway. This year marks the second season of the company-sponsored goose hunts, which began in late November and ran through January. A total of 28 hunters were scheduled on 12 separate days during the season. Four men are assigned to each pit or blind and a professional caller is provided to bring the geese in, with the aid of a few hundred decoys. Some 87 geese were bagged this season by determined Paducah hunters. A few unproductive 'goose-men' look forward to the challenge of next year's hunts.

(Photos by Darlene MacPherson)

Energy crisis halts volleyball leagues

The Union Carbide Volleyball Leagues were discontinued effective Tuesday, February 21, as an energy conservation measure.

The Nuclear Division was notified by the Oak Ridge Recreation Department that all recreational activities will be curtailed until the energy crisis is improved.

The Carbide Recreation Office will notify the manager of each volleyball team when the leagues can be started again.

Chem Tech dance slated March 17

The Chemical Technology Division's 28th annual St. Patrick's Day Dance will be held March 17, at the Elk's Club on Emory Valley Road, Oak Ridge. The social hour begins at 8 p.m. and Judi Kellar's Band will play a variety of music from 9 p.m. until 1 a.m.

Tickets are \$6 and may be purchased from each section head's secretary within the Chemical Technology Division. For further ticket or table reservation information, please call Mary Anne Sedlmeier at 3-6951.

question box

(Continued from page 1)

individual's level of performance and assignment.

The hourly operator's wage rate is subject to negotiations between the Company and the union. Area rates for comparable jobs are strongly considered when the Company's negotiation position is developed.

Extended illnesses

QUESTION: I was under the impression that Union Carbide terminated employees who are absent due to illness for extended period(s) of time, such as missing over one-third of the scheduled workdays in a year for a period of several years. Is this the policy?

ANSWER: It is not possible to answer a hypothetical question without more information on the nature, extent, and possible duration of the illness(es) involved. Termination would normally have to be considered if the individual's illness(es) necessitated extensive absences over a prolonged period.

More STC honors

Capturing Best of Show in the annual competition of the Society for Technical Communication (STC) was Joe W. Gollehon, Public Relations Department, for the **Oak Ridge** brochure.

In the technical art categories, winners from ORNL's Graphic Arts Department, were Bill Clark, for **Oak Ridge**, first place in booklets and second and third place for line illustration; Alice Richardson, second place, brochures; and John Waggoner, third place, displays and signs.

Gollehon and Clark received additional honors from the Carolina chapter of the Printing Industries of America in their annual competition for Oak Ridge in the category of four-color brochures.

next issue...

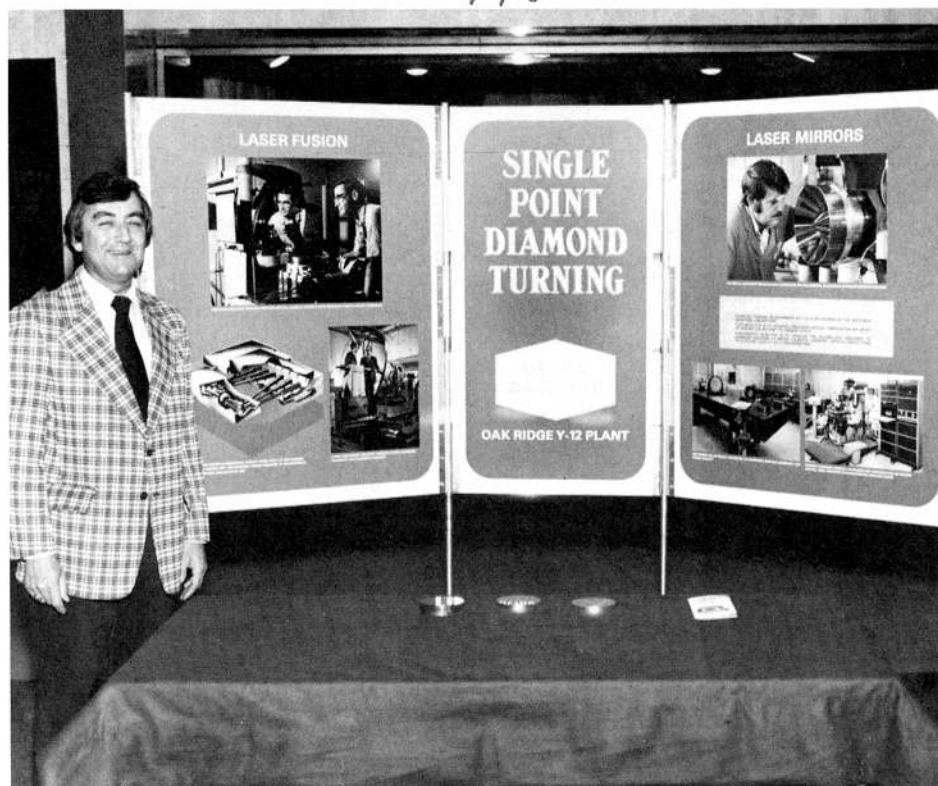
The next issue will be dated **March 16**. The deadline is **March 8**.



WATTEC EXECUTIVE COMMITTEE—Seated, from left are Jerre W. Wilson, Tennessee Valley Authority (TVA); Gordon G. Fee, Nuclear Division (UCC-ND); Finis S. Patton, UCC-ND; George R. Jasny, UCC-ND (chairman); John W. Prados, UTK; standing, from left are Fred D. Mundt, UCC-ND; Raymond A. Rochat, Knoxville Utilities Board; Robert Stepp, UCC-ND; and Norbert J. Ackermann, Tennessee Eastman Corporation.



CERTIFIED TECHNICIANS—Six additional technicians have received certificates as they successfully completed the Institute of Certification of Engineering Technicians' examination. The ORGDP ICET employees are, seated from left, Kermit L. Smith and Bobby J. Barker. Standing are William L. Henley Jr. and David L. Noe, with Finis S. Patton, General Engineering superintendent. Not pictured are Hugh G. Bumpus and Morris T. Burkett.



Y-12 CAPABILITIES—Single point diamond turning, a Y-12 Plant technology, was shown on this exhibit at the Westtown Mall in Knoxville during the Engineers' Week celebration. Paul S. Boyer, Engineering Division, is seen with the display which was assembled by Y-12's graphic arts section.

division deaths...

Clarence R. Teeter II, Y-12 Product Certification Division, died February 12 at a Knoxville hospital. A native of Maryville, he was a veteran of the U.S. Army and taught school and coached basketball in Alcoa before joining Union Carbide in 1968. He was a graduate of Knoxville College.



Mr. Teeter

Survivors include his wife Mary Gray Teeter; son, Clarence R. III; daughters, Nancy Jo McThail, Lilli Gilbert, Kim, India and Sandy Teeter; mother, Rosa Teeter; and sister, Barbara Walker.

Services were held at the Rest Haven Baptist Church with burial in Cedarlawn Cemetery. The family has asked that memorials be in the form of gifts to the Burge Scholarship Fund at St. Johns Baptist Church.

James R. Rowland, an electrician in Y-12's Maintenance Division, died February 18 in Friendsville. A native of El Dorado, Ark., he came to Y-12 in 1970, after working previously at ORGDP from 1952 until 1956. He also worked with General Electric, AVCO Corporation and radio station WOKI, Oak Ridge. He was a veteran of the U.S. Air Force.



Mr. Rowland

Survivors include his wife, Kathleen Loanes Rowland, Route 2, Friendsville; a daughter, Ann Connaster; three sons, Jim, Jeff and Ray; a sister, Mary R. Jones; and three brothers, Harry, Max and Paul Rowland.

The funeral was held at the chapel of McCammon-Ammons Funeral Home, Maryville, with burial in Sherwood Memorial Park.



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NUCLEAR DIVISION

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